WHAT IS CLAIMED IS:

1. A system for optimizing a request-promise workflow, the system comprising:

a first entity operable to:

produce one or more supplies; and

optimize its production of the supplies to generate a promise for the supplies; and

a second entity operable to:

optimize its production of a demand to generate a request for the supplies;

communicate the request to the first entity;

receive a promise for the supplies from the first entity based on the request; and

reoptimize its production of the demand to generate a new request if the promise does not satisfy the request.

2. The system of Claim 1, further comprising a communication link operable to convey information between the first entity and the second entity.

3. The system of Claim 1, wherein the second entity is further operable to repeat the following steps until the promise satisfies the request:

optimizing its production of a demand to generate a request for the supplies;

communicating the request to the first entity;

receiving a promise for the supplies from the first entity based on the request; and

reoptimizing its production of the demand to generate a new request if the promise does not satisfy the request.

4. The system of Claim 1, wherein:

the first entity is further operable to optimize its production of the supplies independently of the second entity; and

the second entity is further operable to optimize its production of the demand independently of the first entity.

5. The system of Claim 1, wherein:

the request comprises a first request for a first supply and a second request for a second supply; and

the promise comprises a first promise for the first supply and a second promise for the second supply.

6. The system of Claim 5, wherein:

the second promise does not satisfy the second request; and

the second entity is further operable to optimize its production to generate a new request using the second promise as a constraint.

7. The system of Claim 1, wherein:

the request comprises a bundled request for at least two supplies to produce the demand;

the promise in response to the bundled request comprises a first promise, a second promise, and a culprit identifying the second promise as the cause for not satisfying the bundled request; and

the second entity is operable to reoptimize its production to generate a new request using the second promise as a constraint.

8. The system of Claim 1, wherein:

the promise comprises an optimization objective and a promise constraint; and

the second entity is operable to reoptimize its production to generate a new request using the promise constraint and the optimization objective.

9. The system of Claim 1, wherein the second entity is operable to generate a request in accordance with one or more internal resources.

10. The system of Claim 1, wherein the second entity is operable to communicate a demand promise to a client if the promise satisfies the request.

11. A method for optimizing a request-promise workflow, the method comprising:

establishing a demand, wherein one or more supplies are needed to satisfy the demand;

assuming that the supplies are unlimited;

optimizing the production of the demand to generate a request for the supplies needed to satisfy the demand;

communicating the request to a supplier;

receiving a promise from the supplier;

determining whether the promise satisfies the request; and

if the promise does not satisfy the request, reoptimizing the production of the demand to generate a new request.

12. The method of Claim 11, further comprising repeating the following steps until the promise satisfies the request:

optimizing the production of the demand to generate a request for the supplies needed to satisfy the demand;

communicating the request to a supplier;

receiving a promise from the supplier;

determining whether the promise satisfies the request; and

if the promise does not satisfy the request, reoptimizing the production of the demand to generate a new request.

13. The method of Claim 11, wherein:

the request comprises a first request for a first supply and a second request for a second supply; and

the promise comprises a first promise for the first supply and the second promise for a second supply.

14. The method of Claim 13, wherein:

the second promise does not satisfy the second request; and

the step of reoptimizing the production of the demand to generate a new request further comprises using the second promise as a constraint.

15. The method of Claim 11, wherein:

the request comprises a bundled request having a first request for a first supply and a second request for a second supply; and

the promise comprises a first promise, a second promise, and a culprit identifying the second promise as the cause for not satisfying the bundled request.

16. The method of Claim 15, wherein the step of reoptimizing the production of the demand to generate a new request further comprises using the second promise as a constraint.

17. The method of Claim 15, wherein the bundled request comprises the supplies required for one demand.

18. The method of Claim 11, wherein:

the promise comprises an optimization objective and a promise constraint; and

the step of reoptimizing the production of the demand to generate a new request further comprises using the promise constraint and the optimization objective.

19. The method of Claim 11, wherein:

the step of optimizing the production of the demand to generate a request of the supplies needed to satisfy the demand further comprises generating the request in accordance with one or more internal resources; and

the step of reoptimizing the production of the demand to generate a new request further comprises generating the new request in accordance with one or more internal resources.

20. The method of Claim 11, wherein determining whether the promise satisfies the request comprises determining whether the promise falls within an acceptable range.

21. The method of Claim 11, further comprising communicating a demand promise to a client if the promise satisfies the request.

22. A method for optimizing a request-promise workflow, the method comprising:

establishing a demand, wherein one or more supplies are needed to satisfy the demand;

assuming that the supplies are unlimited;

optimizing the production of the demand to generate a first request for a first supply and a second request for a second supply needed to satisfy the demand;

communicating the first request to a first supplier;

communicating the second request to a second supplier;

receiving a first promise for the first supply from the first supplier;

receiving a second promise for the second supply from the second supplier;

determining whether the first promise satisfies the first request;

determining whether the second promise satisfies the second request; and

if the first promise does not satisfy the first request or the second promise does not satisfy the second request, reoptimizing the production of the demand to generate a new first request and a new second request.

23. The method of Claim 22, further comprising repeating the following steps until the first promise satisfies the first request and the second promise satisfies the second request:

optimizing the production of the demand to generate a first request for a first supply and a second request for a second supply needed to satisfy the demand;

communicating the first request to a first supplier;

communicating the second request to a second supplier;

receiving a first promise for the first supply from the first supplier;

receiving a second promise for the second supply from the second supplier;

determining whether the first promise satisfies the first request;

determining whether the second promise satisfies the second request; and

if the first promise does not satisfy the first request or the second promise does not satisfy the second request, reoptimizing the production of the demand to generate a new first request and a new second request.

24. The method of Claim 22, wherein:

the second promise does not satisfy the second request; and

the step of reoptimizing the production of the demand to generate a new first request and a new second request further comprises using the second promise as a constraint.

25. The method of Claim 22, wherein the request comprises a bundled request for one or more supplies required for one demand.

26. The method of Claim 25, wherein the request further comprises a sub-bundled request for the supplies supplied by the first supplier.

27. The method of Claim 26, further comprising:

receiving a first promise for the first supply from the first supplier, wherein the first promise comprises a culprit identifying a culprit promise that does not satisfy the sub-bundled request; and

reoptimizing the production of the demand to generate a new first request and a new second request using the culprit promise as a constraint.

28. The method of Claim 26, further comprising:

receiving a first promise for the first supply from the first supplier, wherein the first promise comprises a first culprit promise that does not satisfy a first sub-bundled request;

receiving a second promise for the second supply from the second supplier, wherein the second promise comprises a second culprit promise that does not satisfy a second sub-bundled request, wherein the second sub-bundled promise is larger than the first sub-bundled promise;

reoptimizing the production of the demand to generate a new first request and a new second request using the first culprit promise as a constraint.

29. The method of Claim 22, wherein:

the first promise comprises an optimization objective and a promise constraint; and

the step of reoptimizing the production of the demand to generate a new first request and a new second request further comprises using the promise constraint and the optimization objective.

30. The method of Claim 22, wherein:

the step of optimizing the production of the demand to generate a first request for a first supply and a second request for a second supply needed to satisfy the demand further comprises generating the first request in accordance with one or more internal resources; and

the step of reoptimizing the production of the demand to generate a new first request and a new second request further comprises generating the new first request and a new second request in accordance with one or more internal resources.

31. The method of Claim 22, wherein determining whether the first promise satisfies the first request comprises determining whether the first promise falls within an acceptable range.

32. The method of Claim 22, further comprising communicating a demand promise to a client if the first promise satisfies the first request and the second promise satisfies the second request.